

PCMCIA Card Drive

for
Desktop PC



User's Guide

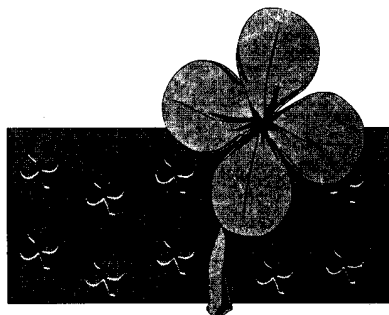


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Introduction

About This User's Guide

This guide will explain how to install, configure, and use your PCMCIA Card Drive product. It contains the Introduction, Hardware Installation, and Software Installation three sections. The series of PCMCIA Card Drives come in three models and this guide is suitable for all the models. The **Hardware Installation** section described the three models that are different hardware configurations and separate instructions. The instruction on **Software Installation** section refers to all the models.

For this guide, you need to go through every section but only the information you want to fit your PCMCIA Card Drive and the computer system.

About This Product

Integration is the watchword for today's computer. Welcome to the PCMCIA Card Drive, the most powerful reader and writer by stimulating development in the business market.

The series of PCMCIA Card Drives have Plug n' Play and Hot Swap features for user friendly technology. They are also highly performance of PC Card readers and writers. With PCMCIA Card Drive, all the things you do now will be easier and faster, and what you've always wanted to do is now possible. PCMCIA Card Drives comply with PCMCIA release 2.1 & up as well as JEIDA 4.1 standards. It provides users who want to upgrade the benefit of being able to add all Type I, II and III PC Cards. PCMCIA Card Drive comes with multiple sockets to offer end-users a wide variety of choices when purchasing PC Cards. It supports synchronous as well as asynchronous PC Cards. PCMCIA Card Drive supports all major operating systems, such as DOS & Windows 3.1X, Windows 95, Windows NT 3.5X & 4.0, and OS/2 Warp 3.0 & 4.0.

The series of PCMCIA Card Drives come in three models and they are:

1. **Dual Rear-Access Socket Solution**
dual rear-access socket solution on the ISA bus card
2. **Two Front-Access Sockets Solution**
two front-access sockets solution on the 3.5" front drive bay
3. **Four Sockets Solution**
four sockets solution with two-rear and two-front access

System Requirements

- An IBM PC compatible computer with a minimum 80286 CPU
- Hard disk drive with at least 1 MB free space
- One free 16-bit ISA bus card slot (the bus clock must be set 8 MHz or slower)
- 3.5" floppy disk drive
- DOS & Windows 3.1X, Windows 95, Windows NT 3.5X/ 4.0, or OS/2 Warp 3.0/ 4.0

Package Contents

Dual Rear-Access Socket Solution

- Host interface drive card (two sockets)
- One diskette
- User's guide

Two Front-Access Sockets Solution

- Interface adapter
- Drive unit (two sockets)
- Flat ribbon cable assembly
- Mounting screws (6)
- One diskette
- User's guide

Four Sockets Solution

- Host interface drive card (two sockets)
- Drive unit (two sockets)
- Flat ribbon cable assembly
- Mounting screws (6)
- One diskette
- User's guide

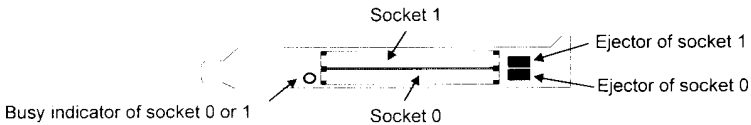
Hardware Installation

This section described hardware installation for the series of PCMCIA Card Drives. Installing the PCMCIA Card Drive will require opening and manipulating your PC. Exercise caution at all times when working with AC powered and static-sensitive equipment. Turn off and unplug your PC and discharge any static electricity from your body by touching any metal surface of your PC before jumper setting and installing this product.

Dual Rear-Access Socket Solution

This PCMCIA Card Drive is the most classical method to add PCMCIA functionality to the desktop. The Host Interface Drive Card is an AT 16-bit ISA card within a pair of PCMCIA sockets on the rear side of the computer. This PCMCIA Card Drive provides a pair of rear-access PC Card socket solution for the desktop user. It can also accommodate one Type III PC Card or two Type I/II cards. It is functionally with all Type of PC Cards. Please refers to the Figure 1 for the location of sockets.

Figure 1. Location of sockets



If you only install one PCMCIA Card Drive, you do not need to go through the Jumper Settings part but Installation Procedure part.

NOTICE: In OS/2 Warp environment, you only can install **one** PCMCIA Card Drive and please change the Socket Number's default values to 2 , 3 (refer to the Table 1 as below).

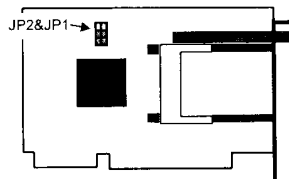
Jumper Settings

There are two sockets on a single PCMCIA Card Drive, however you may add up to four PCMCIA Card Drives in your PC. For this, you need to set the dual of jumper with a different setting for each PCMCIA Card Drive. The dual of jumper named JP1 and JP2 which showed on the Host Interface Drive Card in Figure 2 and the jumper settings on Table 1.

Table 1. Jumper settings

PCMCIA Card Drive	JP2 & JP1	Socket NO.
The 1st PCMCIA Card Drive		0 , 1 (Default)
The 2nd PCMCIA Card Drive		2 , 3
The 3rd PCMCIA Card Drive		4 , 5
The 4th PCMCIA Card Drive		6 , 7

Figure 2. Location of the jumper



Installation Procedure

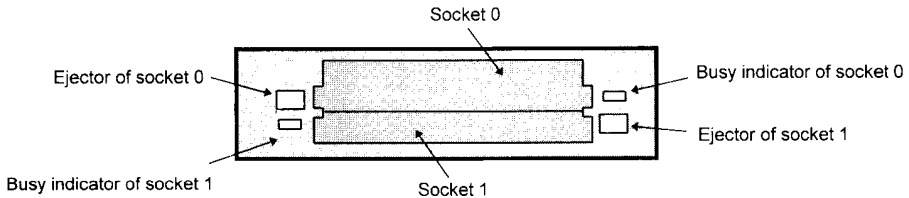
1. Turn off the power and remove the cover of your computer. For instructions on how to disassemble and reassemble the computer, see the manual that came with your computer.
2. Insert and push the Host Interface Drive Card into any free 16-bit ISA bus extension slot of your computer. Once it is in the place, secure it with a mounting screw.
3. Replace the cover of your computer and reconnect the power cord and all cables.

The hardware installation is complete.

Two Front-Access Sockets Solution

This PCMCIA Card Drive uses friendly access to the PC. The 3.5" front Drive Unit with built-in two sockets is connected to the Interface Adapter by using the flat ribbon cable. This PCMCIA Card Drive provides two front-access PCMCIA sockets solution for the desktop PC. There are two Type I and II PC Card sockets that can be used for one Type III PC Card and one Type I or II PC Card simultaneously in this unit. It is fully support for all your PC Cards. Please refers to the Figure 3 for the location of sockets.

Figure 3. Location of sockets



If you only install one PCMCIA Card Drive, you do not need to go through the Jumper Settings part but Installation Procedure part.

NOTICE: In OS/2 Warp environment, you only can install **one** PCMCIA Card Drive and please change the Socket Number's default value to 2, 3 (refer to the Table 2 as below).

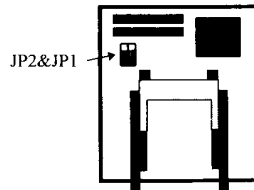
Jumper Settings

There are two sockets on a single PCMCIA Card Drive, however you may add up to four PCMCIA Card Drives in your PC. For this, you need to set the dual of jumper with a different setting for each PCMCIA Card Drive. The dual of jumper named JP1 and JP2 which showed on the Drive Unit in Figure 4 and the jumper settings on Table 2.

Table 2. Jumper settings

PCMCIA Card Drive	JP2 & JP1	Socket NO.
The 1st PCMCIA Card Drive		0, 1 (Default)
The 2nd PCMCIA Card Drive		2, 3
The 3rd PCMCIA Card Drive		4, 5
The 4th PCMCIA Card Drive		6, 7

Figure 4. Location of the jumper

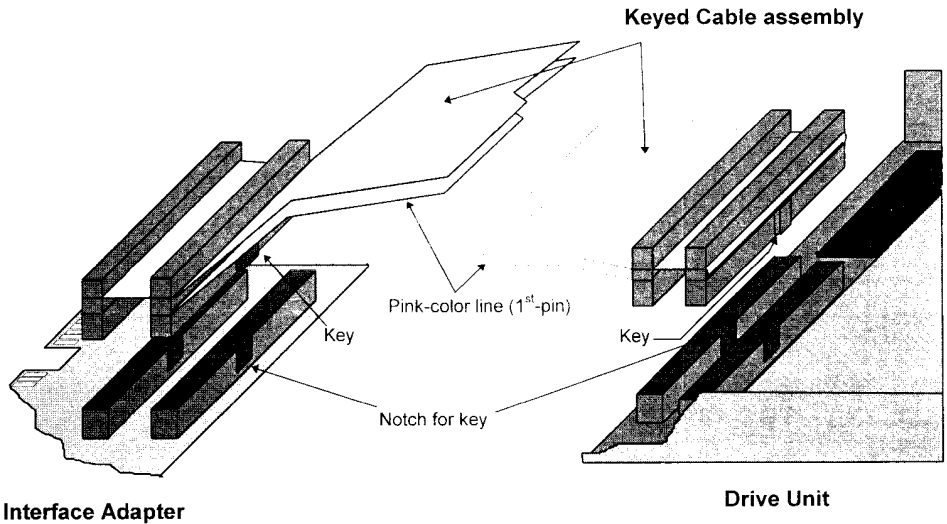


Installation Procedure

1. Turn off the power and remove the cover of your computer. For instructions on how to disassemble and reassemble the computer, see the manual that came with your computer.
2. Connect the Interface Adapter and the Drive Unit with the flat ribbon cable assembly provided. The flat ribbon cable assembly is keyed and there is a notch on the dual connector of Interface Adapter and Drive Unit, this will not allow incorrect insertion (refer to Figure 5).
3. Insert and push the Interface Adapter into any free 16-bit ISA bus extension slot of your computer. Once it is in the place, secure it with a mounting screw.
4. Slide the Drive Unit into the drive bay of your computer and secure it with the 6 screws provided.
5. Make sure the cable is correctly connected on the Drive Unit and Interface Adapter.
6. Replace the cover of your computer and reconnect the power cord and all cables.

The hardware installation is complete.

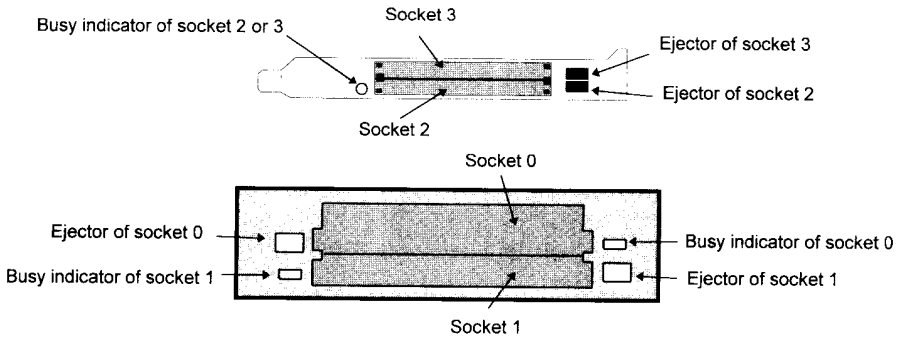
Figure 5. Flat Ribbon Cable connection



Four Sockets Solution

This PCMCIA Card Drive provides the user with the most reality in supporting many PCMCIA configurations. Users will not have frustration and time consume problem in using their PC Cards. This PCMCIA Card Drive combines Host Interface Drive Card which is an AT 16-bit ISA card within a pair of PCMCIA sockets on the rear side of the computer and Drive Unit which is a 3.5" front drive unit with built-in two sockets that connected to the Host Interface Drive Card by using the flat ribbon cable in a single unit. It provides a dual socket of rear and front-access capability, these four sockets support the desktop environment of PCMCIA. We recommend you to insert Modem & LAN cards in the rear socket and ATA & SRAM/Flash cards in the front socket for your choice and convenience. Please refer to the Figure 6 for the location of sockets.

Figure 6. Location of sockets



One computer just allows users to install up to two PCMCIA Card Drives. This PCMCIA Card Drive's jumpers location showed in Figure 7. The dual of jumper named JP1 and JP2 that showed on the Drive Unit and Host Interface Drive Card.

NOTICE: This PCMCIA Card Drive is not suitable in OS/2 Warp environment .

Figure 7. Location of the jumper



The Socket Number's default values are 0 , 1.
If you need to change it, please refer to the **Table 2. Jumper settings** on page 5.

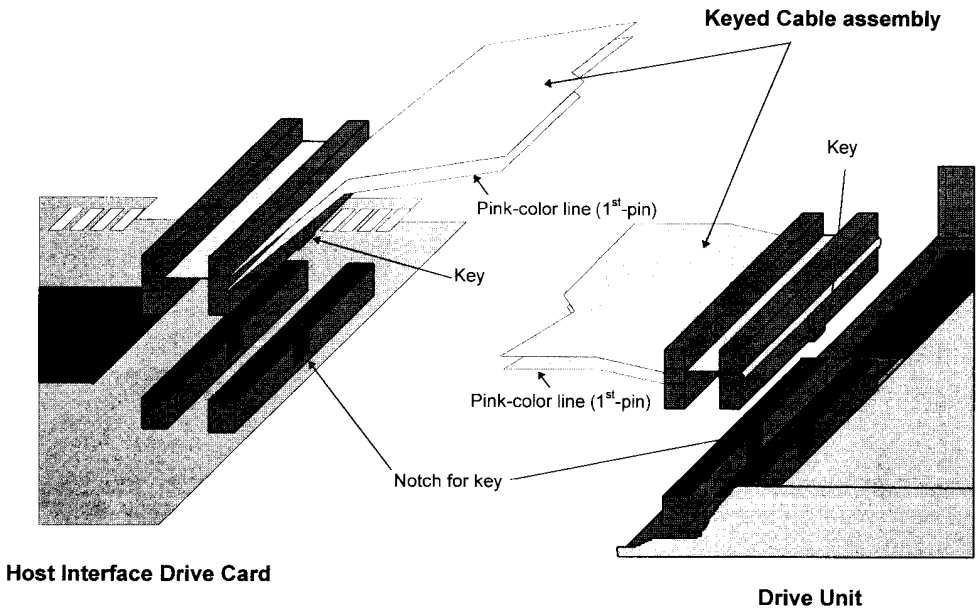
The Socket Number's default values are 2 , 3.
If you need to change it, please refer to the **Table 1. Jumper settings** on page 3.

Installation Procedure

1. Turn off the power and remove the cover of your computer. For instructions on how to disassemble and reassemble the computer, see the manual that came with your computer.
2. Connect the Host Interface Drive Card and Drive Unit with the flat ribbon cable assembly provided. The flat ribbon cable assembly is keyed and there is a notch on the dual connector of Host Interface Drive Card and Drive Unit, this will not allow incorrect insertion (refer to Figure 8).
3. Insert and push the Host Interface Drive Card into any free 16-bit ISA bus extension slot of your computer. Once it is in the place, secure it with a mounting screw.
4. Slide the Drive Unit into the drive bay of your computer and secure it with the 6 screws provided.
5. Make sure the cable is correctly connected on the Host Interface Drive Card and Drive Unit.
6. Replace the cover of your computer and reconnect the power cord and all cables.

The hardware installation is complete.

Figure 8. Flat Ribbon Cable connection



Software Installation

This section explains how to install the PCMCIA Card Drive in DOS & Windows 3.1X, Windows 95, Windows NT, and OS/2 Warp's environments.

NOTICE: Please confirm the hardware installation was completed and removed any PC Cards that are in the PCMCIA socket(s) *before* installing software.

In DOS & Windows 3.1X

BIOS Setting Note

Before you are going to install the software, please check the BIOS setting and disable the PNP OS installed item in the PNP and PCI Setup option.

- Following is the example for AWARD BIOS
 1. Turn on the computer and press **** to enter CMOS setup utility.
 2. If you can see **PNP AND PCI CONFIGURATION** or **PNP AND PCI SETUP** option in the main menu, click it otherwise exit the setup.
 3. If **PNP OS Installed** item is available, please select **NO**.
 4. Save and exit setup.
- Following is the example for AMI BIOS
 1. Turn on the computer and press **** to enter BIOS setup utility.
 2. If you can see **PCI/PnP Setup** option in the main menu, click it otherwise exit the setup.
 3. If **Plug and Play Aware O/S** item is available, please select **NO**.
 4. Save and exit setup.

NOTICE: For other BIOS, such as PHOENIX, etc., please follow their setting procedure.

Driver

This package includes a driver to support DOS & Windows 3.1X environments. The DOS versions' PCMCIA services software **CardSoft** is manufactured by SystemSoft. It also comes with the **CardView**, a PCMCIA control and maintain utility for Microsoft Windows, and it works side by side with CardSoft allowing you to configure and control your PCMCIA cards easily while in the Windows.

Installation Procedure

1. Start your computer. Insert the supplied diskette (CardSoft & CardView) into the drive A: or B:.
2. If you are a DOS user, type **A:\INSTALL** or **B:\INSTALL** in the DOS prompt and press Enter. If you are a Windows user, start up the Windows now. From the Program Manager, select **File** and click **Run**, and then type **A:\INSTALL** or **B:\INSTALL** when asked for a filename and press Enter.
3. Follow the instructions that appear on your screen. If you have problems or questions, refer to the CardSoft User's Guide from the supplied diskette for help.
4. If you are a Windows user, you'll probably want to install CardView after the CardSoft installation is completing. To install the CardView, start up the Windows. From the Program Manager, select **File** and click **Run**, and then type **A:\SETUP** or **B:\SETUP** when asked for a filename and Enter. When the CardView program appeared, follow the directions on your PC's screen. If you have problems or questions, refer to the CardView User's Guide from the supplied diskette for help.

Software Documentation

The supplied diskette contains the software documentation which is written into 4 files, they are located in the **\Doc sub-directory** as described below.

CSUG-DOC.EXE-----CardSoft User's Guide
 CVUG-DOC.EXE-----CardView User's Guide
 CSTR-DOC.EXE-----CardSoft Technical Reference
 README.DOC-----Using PC Cards and Troubleshooting

Above files will be decompressed to MS-Word format by executing them under the DOS environment except README under Windows environment. Meanwhile, the CSUG and CVUG are enough for user's concerns. Normally you may not need them unless you got a problem when you use PC Cards.

Verify Memory Manager

During the installation procedure, if one of the following memory managers is detected, a warning screen will display and that looks like the one shown below, the appropriate DEVICE line will change for your memory manager as shown on the screen:

EMM386 QEMM 386MAX

```
The CardSoft 3.1 Install Utility has detected the presence of the
EMM386 memory manager. In order for CardSoft 3.1 to
function properly, certain ranges of memory need to be excluded
from this memory manager. If you wish to ensure proper functionality
of the CardSoft 3.1 drivers we suggest you add the switch
X=D000-DFFF. After this installation is complete, please edit
the line in your CONFIG.SYS file to appear as below
```

```
DEVICE=C:\DOS\EMM386.EXE NOEMS X=D000-DFFF
```

```
Press [Esc] to quit any other key to continue
```

If you see this screen (or a similar screen), write down the displayed DEVICE line. When the installation has completed, change the memory manager device line in your CONFIG.SYS file to match the one displayed on this screen. To edit or display your CONFIG.SYS file, type command **Edit CONFIG.SYS** at the DOS prompt. If you are using the EMM386 memory manager, look for a line similar to the following (if you do not see a line like this, then you are not using EMM386 on your system):

```
device=emm386.exe
```

To exclude the address range D000-DFFF, change this line as shown here (this is what is displayed on the installation screen if EMM386 is detected):

```
device=emm386.exe noems x=d000-dfff
```

If you are using a memory manager other than those listed, refer to the manual that you received with the memory manager for instructions on how to exclude an address range.

Verify Installation

Before using the PC card, you should verify your installation. After the software installation, your CONFIG.SYS file will include command lines shown at right-hand. The default directory is \CARDSOFT.

The first statement of SSVIA.EXE is depended on chip brand of the PCMCIA host controller. For other chip, the file will instead of **SSVIA.EXE**.

The line 5 to 9 and 12 to 13 are included only while the supplied software disk contains optional FFS2 or FTL format. The FFS2 (Flash File System version 2.0) format is for Microsoft system and the FTL (Flash Translation Layer) format is for SystemSoft system.

Make sure all the devices have been loaded successfully. After verifying the content of CONFIG.SYS file, reboot the system. Look up the proceeding of loading all devices. Make sure you will not see any error message.

Check resources of the system. A CSALLOC Utility scans the system for the available PC Card resources such as memory (MEM), I/O Port (IOP), and Interrupt Request Line (IRQ). At the CardSoft directory, type **CSALLOC/r** and press Enter. A list will look like the following.

```
MEM: D000-DFFF
IOP: 108-1EF, 1E8-377, 380-3EF, 970-977, B70-B77, D70-D77, F70-F77
IRQ: 3, 5, A-C, E, F
```

None of the 3 lines above can be absent

Please check the following step by step:

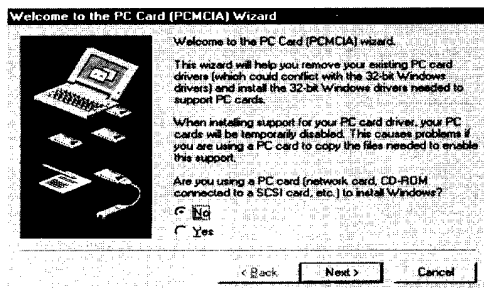
```
DEVICE=C:\CARDSOFT\SSVIA.EXE
DEVICE=C:\CARDSOFT\CS.EXE
DEVICE=C:\CARDSOFT\CSALLOC.EXE
DEVICE=C:\CARDSOFT\WATDRV.EXE
DEVICE=C:\CARDSOFT\MTAA.EXE
DEVICE=C:\CARDSOFT\MTAB.EXE
DEVICE=C:\CARDSOFT\MTI1.EXE
DEVICE=C:\CARDSOFT\MTI2P.EXE
DEVICE=C:\CARDSOFT\MTATM.EXE
DEVICE=C:\CARDSOFT\MTSRAM.EXE
DEVICE=C:\CARDSOFT\MTDDR.VX
DEVICE=C:\CARDSOFT\SSMSFLSH.SYS
DEVICE=C:\CARDSOFT\FTL.EXE
DEVICE=C:\CARDSOFT\CARDID.EXE
```

In Windows 95 (4.00.950/4.00.950a/4.00.950b)

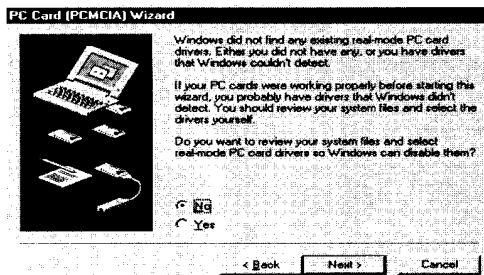
Windows 95 contains built-in PCMCIA support. Windows 95 supports the PCMCIA Card Drive and it can help you set up this new hardware on your system. However, the following procedures must be used upon initial hardware set-up. For more detailed information, please refer to the Windows 95's manual or on-line help.

Installation Procedure

1. Start Windows 95. Windows 95 found a new hardware "VIA PCMCIA CARD" and identify it is a PCIC or compatible PCMCIA controller.
2. Click the **Start** button, point to **Settings**, and then click **Control Panel**.
3. Double-click the **PC Card (PCMCIA)** icon.
4. Select **No** and click the **Next** button on this wizard to install the Windows drivers for supporting PC Cards.



5. Select **No** and click the **Next** button on this wizard.



6. To enable the driver support, click **Finish**, and then **Restart** your computer for the changes to take effect.

NOTICE: If you are using PCMCIA Hard Disk or ATA Flash card, you should go to CMOS to disable the Secondary IDE Port.

In Windows NT

Windows NT has built-in PCMCIA support. Windows NT supports the PCMCIA Card Drive and it can help you set up this new hardware on your system. PCMCIA Card Drive can be automatically installed during Windows NT installation or it can be installed through the following steps after Windows NT installation.

Installation Procedure

1. Start the Windows NT.
2. Click the **Start** button, point to **Settings**, and then click **Control Panel**.
3. Double-click **Devices**, a dialog box will appear with alphabetical order.
4. Click the **down arrow** to find Pcmcia, you will see it was **disable** under the Startup.
5. Select **Pcmcia**, and then click **Startup** button.
6. Choose **Boot** instead of disabled, and then click **Ok**.
7. Click **Close** button and restart you computer.

☛ Turn off and ALWAYS turn off your computer before removing or inserting PC Card.

NOTICE: If your PC Card not work functionally, you may need to have Microsoft's Service Pack. Also, not all PC Cards are supported under Windows NT.

In OS/2 Warp

OS/2 Warp provides software support for PCMCIA hardware. OS/2 Warp supports the PCMCIA Card Drive and it can help you set up this new hardware on your system. PCMCIA Card Drive can be automatically installed during OS/2 installation to select **INTEL PCIC** (it should be known as compatible system) for PCMCIA Support or it can be installed through the following steps after OS/2 Warp installation.

Installation Procedure

1. Start the OS/2 Warp.
2. Open **OS/2 System, System Setup, Install/Remove, and Selective Install**.
3. Click **Next** when the System Configuration window is displayed.
4. Select the check box to the left of **PCMCIA Support** to display the Select PCMCIA System window.
5. Select the **INTEL PCIC** (it should be known as compatible system), and then click **Ok**.
6. Follow the instructions on the screen.



Boot from Memory Card

THIS IS ONLY FOR SPECIFIED MODEL OF PCMCIA CARD DRIVE THAT CAME WITH ***BOOTROM*** ON THE ISA BUS INTERFACE CARD.

While system booting, please make sure the BootROM BIOS shows

either

PCMCIA Boot Services Option ROM
Copyright SystemSoft Corp. 1992-1993. All Rights Reserved
Systemsoft PC Card Boot Utility Version 1.01

Or

Extension Boot ROM Ver. 3.02
Copyright © 1994 Carry Computer Eng. Co., Ltd.
All Rights Reserved.

messages.

NOTICE: If you didn't see the message, you need to change the jumper setting. Please refer to the Jumper setting for boot function from the **Appendix**.

Preparing a Boot Memory Card

Please refer to the README.TXT which is located in the UTILITY sub-directory on the supplied diskette.



Appendix: BootROM Address

For BootROM address selection, please refer to jumper setting of JP1 or JP3 in the following tables:

Pin Assignment

2	4	6	8	10	12	14	16
1	3	5	7	9	11	13	15

Address Map for 8K bytes size of Boot ROM

1-2	3-4	5-6	7-8	9-10	11-12	13-14	Base Address
S	S	S	S	S	O	O	C000-C1FF
O	S	S	S	S	O	O	C200-C3FF
S	O	S	S	S	O	O	C400-C5FF
O	O	S	S	S	O	O	C600-C7FF
S	S	O	S	S	O	O	C800-C9FF
O	S	O	S	S	O	O	CA00-CBFF
S	O	O	S	S	O	O	CC00-CDFF (Default)
O	O	O	S	S	O	O	CE00-CFFF
S	S	S	O	S	O	O	D000-D1FF
O	S	S	O	S	O	O	D200-D3FF
S	O	S	O	S	O	O	D400-D5FF
O	O	S	O	S	O	O	D600-D7FF
S	S	O	O	S	O	O	D800-D9FF
O	S	O	O	S	O	O	DA00-DBFF
S	O	O	O	S	O	O	DC00-DDFF
O	O	O	O	S	O	O	DE00-DFFF
S	S	S	S	O	O	O	E000-E1FF
O	S	S	S	O	O	O	E200-E3FF
S	O	S	S	O	O	O	E400-E5FF
O	O	S	S	O	O	O	E600-E7FF
S	S	O	S	O	O	O	E800-E9FF
O	S	O	S	O	O	O	EA00-EBFF
S	O	O	S	O	O	O	EC00-EDFF
O	O	O	S	O	O	O	EE00-EFFF

Enable/Disable Boot ROM

15-16	Enable/Disable
S	Enable (Default)
O	Disable

“S” – means Short

“O” – means Open

